



**PRAYER
TIMINGS**

FAJR	04.47 am
SUNRISE	06.05 am
DHUHR	11.48 am
ASR	03.04 pm
MAGHRIB	05.33 pm
ISHA	07.03 pm



WEATHER	TODAY
18°C	27°C
Minimum	Maximum
Misty at places at first becomes moderate temperature daytime, relatively cool by night.	
ALRIWAIS : 18° + 23°	
ALKHOR : 15° + 27°	
DUKHAN : 18° + 24°	
WAKRAH : 12° + 28°	
MESHEID : 12° + 28°	
ABUSAQRA : 16° + 24°	
HIGH TIDE 06:44 - 18:29	
LOW TIDE 1:13 - 14:34	

Oral health can save people from severe COVID-19 complications: QU research

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This study was led by Qatar Hamad Dental Center (QHDC) University, collaborating with McGill University in Canada and the Complutense University in Spain. The team included researchers from Qatar University (Dr. Duaa), a graduate student from McGill University (W. Cat), and doctors and staff from Hamad Medical Corporation, such as dental specialists, ICU specialists, and computer engineers.

"We also had the privilege to count with two world-renowned researchers in periodontitis and epidemiology, like Dr. Martiano Sanz (Spain) and Dr. Belinda Nicolau (McGill University, Canada)," added Dr. Faleh.

Shedding light on the link between periodontitis and COVID-19 complications, Dr. Faleh said: "There are several ways in which periodontitis could make one more vulnerable. One possibility is that the bacteria in the mouth could make their way to the lungs and complicate things. Another possibility is that patients with gum diseases have ongoing inflammation in the body that makes their immune system more prone to fight a destructive way to COVID-19."

The good news is that it is easy to prevent and manage periodontal disease. People need to implement proper oral hygiene after every meal and use dental floss to clean between the teeth. Dentists visit 2 to 3 times per year to check out the mouth and professional cleaning of the teeth is necessary. "Having a chronic infection in your mouth is not good for your health. It has been known for some time that periodontitis can have detrimental effects on many systemic diseases such as cardiovascular diseases, diabetes, stroke, pneumonia, Alzheimer's, diabetes, to mention a few," he added. Researchers in Qatar investigated 568 patients who suffered from COVID-19 and found that a significant portion of patients, who suffered severe complications, including death, had an advanced stage of gum disease.

Activities of exercise for National Service Academy cadets begin

DNA — DOHA

The activities of an exercise carried out by the National Service Academy cadets kicked off recently under the patronage and in the presence of Deputy Prime Minister and Minister of State for Defence Affairs H E Dr. Khalid bin Mohammed Al Attiyah.

The exercise, which will continue until February 23, focuses on managing night operations and the methods of their implementation, as it is divided into two phases. The first phase is the night ground operations in which training on

the planned attack is carried out in the day and night. It also includes night patrols, search and attack training for engagement. As for the second phase of the exercise, it is focusing on defending islands, and these operations and training are also carried out during the night and day periods, in order to raise the combat preparedness of the Qatar Armed Forces.

The exercise also enhances the ability to respond to day or night attacks, and provides training on how to create engineering obstacles and establish the necessary fortifications.



Deputy Prime Minister and Minister of State for Defence Affairs H E Dr. Khalid bin Mohammed Al Attiyah with officials of National Service Academy.

New study reveals genetic influence on cancer immune responsiveness

THE PENINSULA — DOHA

Sidra Medicine and Qatar Computing Research Institute (QCRI) at Hamad Bin Khalifa University (HBKU), Qatar Foundation, led a research study with the University of California, San Francisco (UCSF) that represents a significant step toward personalized cancer immunotherapy approaches.

The international team of cancer immunologists, computational scientists, oncologists, biologists, and geneticists found that pre-existing healthy cancer immunity depends heavily on a patient's genetic background. As such, certain genetic variants that make each of us unique can also influence the way the immune system fights tumors.

Immunotherapy, a therapeutic approach based on boosting the immune system to change the way cancer is treated, is only a minority of patients respond to the treatment.

Dr. Davide Bedognetti, Director of the Cancer Research Department at Sidra Medicine and Adjunct Associate Professor at the College of Health and Life Sciences at HBKU, with Dr. Elad Ziv, Professor of Medicine at UCSF, led the research team as co-senior authors.

Medicine at UCSF, led the research team as co-senior authors. QCRI's Dr. Mohammad Saad and UCSF's Dr. Rosalyn Sayaman, co-first authors, were the lead computational scientists. Other team members from Sidra Medicine include Dr. Worcester Hendricks Jester Roelands, Dr. Younhes Mokrab and Najeesh Syed. The immunogenomic analytic approach used in the study to dissect tumour-host interplay was also implemented as a part of one Qatar National Research Fund's National Priorities Research Program project.

The new joint research holds significant potential for further achievements. Future studies will determine whether a combined "immunogenetic score" can detect patients more likely to benefit from specific immunotherapies, for a truly personalised approach.

Having identified several variants of genes for which the immunological functions are not known, the team is hopeful that studying these genes in detail might lead to the identification of novel therapeutic targets.

Dr. Bedognetti said: "We already know that the risk of developing certain diseases, such as cancer and high blood pressure, for instance, is influenced by our own DNA, and our research indicates that this is also the case for anti-cancer immune response."

"Translating these findings into clinical practice to develop personalised immunotherapeutic approaches accounting for patients' genetic fingerprints represents the next challenge. We are now characterising paediatric cancer patients genetically and immunologically to expand immunotherapy to this population."

"We are still at the beginning of this exciting program, and we

remain hopeful of the outcome that will ultimately benefit more and more patients affected by this devastating disease."

Commenting on how the study has highlighted the role of computational analysis in tackling major diseases, Dr. Saad said: "Advances in next-generation sequencing technology, coupled with the rapid progress of computer hardware and software, enabled the generation and analysis of many types of biological data at a large scale. In this study, we analysed a set of around 9,000 patients with 30 different cancer types."

Commenting on the complexity of the interaction between cancer cells and the immune system, and the large amounts of data needed to capture them, the role of computers has become more and more important in analysing data. This leads to understanding the biological mechanism behind cancer and response to immunotherapy. As the amount and type of data will grow exponentially due to technological advances, machine learning and artificial intelligence methods will be needed to understand them and extract clinically relevant information."

Bhavan's Public School lauded for high score in global exam

THE PENINSULA — DOHA